

1. A linear array consists of three equidistant single frequency source (118 hydrophone signals and the summed



(a) The arriving signal has an incident angle of 25°
(b) The arriving signal has an incident angle of 39.35°



$$c = 1500 \text{ m/s}$$

$$d = 1 \text{ m}$$

$$\Omega_0 = (1183, 101 \text{ Hz}) 2\pi$$

39.35

$$s(t) = \cos(\Omega_0 t) + \cos(\Omega_0 t - d \sin \alpha) + \cos(\Omega_0 t - 2d \sin \alpha)$$

✓

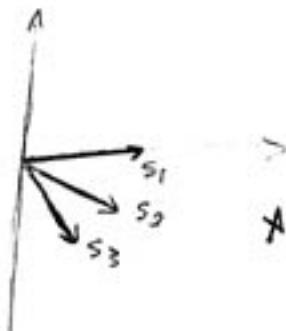
2 $\alpha = 25^\circ$

4.5 / 10

$$s_1(t) = \cos(7433.6t)$$

$$s_2(t) = \cos(7433.6t - (2.82 \cdot 10^{-4}))$$

$$s_3(t) = \cos(7433.6t - (5.63 \cdot 10^{-4}))$$



2 $\alpha = 39.35^\circ$

$$s_1(t) = \cos(7433.6t)$$

$$s_2(t) = \cos(7433.6t - (4.23 \cdot 10^{-4}))$$

$$s_3(t) = \cos(7433.6t - (8.45 \cdot 10^{-4}))$$

